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Beer et al.

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A7

[54] INCUBATOR

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[56]

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[57]

ABSTRACT

An incubator for neonatology has a chamber to receive a baby and to maintain it under aerated and heat-con-

trolled conditions; the chamber is enclosed by a bottom shell and a transparent top casing; heating and aerating means as well as an air distribution system are provided; passage of heat-controlled air through the chamber is optimized by a pair of superimposed horizontal trays that define two air-conducting spaces, one between the lower tray and the bottom shell and the other between the lower and the upper tray; the upper tray includes an insert that supports the baby; the lower tray is about as long as the chamber; the upper tray is shorter but less wide than the chamber; longitudinal air-passing gaps are formed between the lower tray and the bottom shell and communicate with the lower air-conducting space; transverse air-passing gaps are formed between adjacent end walls of the trays and communicate with the upper air-conducting space.

The suction side of a blower is connected with one of the air-conducting spaces while the blowing side is connected with the other. When the blower is operated, two pairs of air curtains are formed, one pair by the two transverse gaps and the other pair by the two longitudinal gaps. One curtain pair is up-current, the other is down-current for passing heated air smoothly and draft-free through the chamber.

The two interfitting trays provide a novel and effective air distribution system for incubators and similar devices, yet can be removed and reassembled easily for thorough disinfection between changes of patients.

10 Claims, 5 Drawing Figures

